

UNCLASSIFIED

FY 2000 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1999

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0305927N

PROGRAM ELEMENT TITLE: Naval Space Surveillance

(U) COST: (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1998 ACTUAL	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0125	Naval Space Surveillance									
	387	398	712	724	737	749	765	781	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Naval Space Surveillance Fence is an integral component of the U. S. Space Command Space Surveillance Network. This system provides continuous surveillance and unalerted detection of space objects crossing the Continental United States. The fence is also the only space surveillance system which provides satellite vulnerability and space control data to the fleet. It is a multistatic continuous wave radar fence consisting of three transmitter sites, six receiver sites, and a computation/communication center. The Alternate Space Control role assigned by U.S. Commander in Chief Space (USCINCSpace), requires that the Naval Space Command Mission System maintain functional equivalence with the USCINCSpace Space Control Center and receive, process, and distribute data from 26 surveillance sites. The increase in funding FY00 and out supports this role and the research and development of high-powered transmitters and other system component parts for the next generation fence system to reduce risk in the implementation phase.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it encompasses engineering and manufacturing development for upgrading existing operational systems.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

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Budget Item Justification
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PROGRAM ELEMENT: 0305927N

PROJECT NUMBER: R0125

PROGRAM ELEMENT TITLE: Naval Space Surveillance

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1. (U) FY 1998 ACCOMPLISHMENTS:
 - (U) (\$192) Improved accuracy and consistency of chip processing techniques.
 - (U) (\$175) Studied and analyzed the geodetic positional alignment of the space surveillance radar system and determined the effect on system performance.
 - (U) (\$ 20) Traveled in support of Naval Space Surveillance Fence.
2. (U) FY 1999 PLAN:
 - (U) (\$190) Evaluate tradeoffs in prototype S band feed assembly as part of a large antenna array.
 - (U) (\$100) Evaluate impacts to current system of S band implementation.
 - (U) (\$ 99) Demonstrate impact of high volume (10-100X) processing on multiple site integration.
 - (U) (\$ 9) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.
3. (U) FY 2000 PLAN:
 - (U) (\$190) Assess impact of chirp processing to S-band operations.
 - (U) (\$150) Study system designing trades for S-band operations.
 - (U) (\$100) Evaluate multi-frequency detection processing.
 - (U) (\$150) Verify high volume processing algorithms.
 - (U) (\$122) Study improved drag processing for low orbits.

B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>
(U) FY 1999 President's Budget:	387	399	722
(U) Appropriated Value:		399	-

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Budget Item Justification
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FY 2000/2001 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

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BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0305927N

PROJECT NUMBER: R0125

PROGRAM ELEMENT TITLE: Naval Space Surveillance

PROJECT TITLE: Naval Space Surveillance

(U) Adjustments from FY 1999 PRESBUDG:	0	-1	-10
(U) FY 2000 President's Submission:	387	398	712

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY99 adjustments are due to Revised Economic Assumption (-1K). FY00 adjustment is due to Non Pay Inflation (-10).
(U) Schedule: Not applicable.
(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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Budget Item Justification
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FY 2000 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: February 1999

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0305927N

PROJECT NUMBER: R0125

PROGRAM ELEMENT TITLE: Naval Space Surveillance

PROJECT TITLE: Naval Space Surveillance

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>
a. Project Management	20	15	20
b. Product Development	367	384	692
Total	387	398	712

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RDT&E PE/Project Cost Breakdown
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